IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of: Roberto Pavez Aranguiz

Application No.:	10/685,613	Examiner:	CHEUNG, William K.
Filing Date:	10/15/2003	Group Art Unit:	1796
		Confirmation No.:	5097

For: Filler Containing Polymer Dispersion, Method for its Production and its Use

To: Mail Stop Appeal Brief, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

ATTENTION: Board of Patent Appeals and Interferences

AMENDED BRIEF ON APPEAL

Honorable Judges:

This is a second Amended Brief on Appeal to the Board of Appeals from an Office Action mailed on November 16, 2007 and marked final, and the subsequent Advisory Actions mailed on February 13, 2008 and April 10, 2008, in which the Examiner finally rejected claims 18 and 20-39 of the subject application. Appellant timely filed a Notice of Appeal on May 15, 2008 (together with a Petition Under 37 C.F.R. § 1.136(a) and fee) and herewith files this Brief by the due date of August 15, 2008 (together with a Petition Under 37 C.F.R. § 1.136(a)) in support of that Notice of Appeal.

As required by 37 C.F.R. § 41.37, a single copy of this Brief was timely filed and the required fees paid. Kindly charge any further extension or fees required for this Appeal, or credit any fees or overpayments, to Deposit Account No. 12-2135.

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I. **Real Party in Interest**

The subject application is owned by Henkel AG & Co. KGaA, of Dusseldorf Germany, by change of name from Henkel Kommanditgesellschaft Auf Aktien (Henkel KGaA) and Henkel Chile S.A.[1]

II. **Related Appeals and Interferences**

No related appeals or interferences are known to Appellant or Appellant's legal representative.

III. **Status of Claims**

Claims 1-17 are cancelled. Claims 18-39 are presently pending in the application. Claims 18 and 20-39 stand finally rejected. Claim 19 is objected to. Claims 18 and 20-39 are on appeal. No claims stand allowed.

IV. **Status of Amendments**

On November 16, 2007 the Examiner finally rejected all of claims 18-39. Appellant filed a number of Rule 116 responses which succeeded in having the rejection of claim 19 withdrawn; however no claim amendment was entered and the Advisory Actions each indicate that claims 18 and 20-39 remain finally rejected.

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[1] Ownership of this divisional application is by virtue of an Assignment of the parent 09/869467 application (now U.S. Patent No. 6,727,305) recorded at reel 012053, frame 0403.

V. Summary of Claimed Subject Matter

Claim 18 is directed to a filler-containing polymer dispersion. The dispersion comprises water; particles of at least one filler selected from the group consisting of organic fillers, inorganic fillers and mixtures thereof [pp. 5, L2 - pp. 8, L28], at least one water soluble organic polymer with a molecular weight of more than 600 and an HLB value of at least 15 [pp. 10, L30 - pp. 12, L2], and particles of at least one synthetic organic polymer [pp. 8, L29 - pp. 10, L21], polymerized in the presence of at least one type of the filler particles [pp. 5, L10-19], wherein the dispersion has a ratio of filler particle size to synthetic organic polymer particle size of 1.1:1 to 20:1.

Claim 25 is directed to a process for the production of a filler-containing polymer dispersion, which comprises: emulsion polymerizing at least one radical-polymerizable monomer in an aqueous phase using a polymerization initiator [pp. 17, L24 - pp. 18, L9], the aqueous phase containing filler particles of at least one dispersed filler with a particle size (d50) of 0.01 to 0.5 µm and at least one water-soluble organic polymer with a molecular weight of more than 600 and an HLB value of more than 15 [pp. 20, L7-15] whereby a dispersion comprising filler particles and polymer particles is formed.

Claim 33 is directed to a filler-containing polymer dispersion, produced by the process claimed in claim 25. The Board's attention is directed to Appellant's Examples starting in pp. 22, L25.

Claim 34 is directed to an adhesive or surface coating composition, comprising at least one filler-containing polymer dispersion according to claim 18. The Board's attention is directed to pp. 16, L17-21; and pp. 22, L16-22.

Claim 35 is directed to an adhesive or surface coating composition produced by the process of claim 25. The Board's attention is directed to pp. 16, L17-21; and pp. 22, L16-22.

VI. Grounds of Rejection to be Reviewed on Appeal

Whether claims 18 and 20-24, 34 and 36-39 are patentable under 35 U.S.C. §102(e) as having each and every feature and interrelationship anticipated by U.S. Patent No. 6,140,394 to Kamiyama et al. as affirmed in product literature of Hielscher-Ultrasound Technology.

Whether claims 25-33 and 35 are patentable under 35 U.S.C. §102(e) as having each and every feature and interrelationship anticipated by U.S. Patent No. 6,140,394 to Kamiyama et al. as affirmed in product literature of Hielscher-Ultrasound Technology.

VII. Argument

1. U.S. Patent No. 6,140,394 to Kamiyama et al.

Kamiyama is directed to a method of producing polymer particles by suspension polymerization. Kamiyama repeatedly limits the disclosure to suspension polymerization. See, for example:

- METHOD AND APPARATUS OF SUSPENSION POLYMERIZATION (Title).
- A method of suspension polymerization . . . (Abstract).
- More particularly, the present invention relates to . . . suspension polymerization. (Column 1, lines 13-16).

- An object of the invention is to provide a method of suspension polymerization. (Column 2, lines 25-29).
- The present invention relates generally to a method of suspension polymerization . . . (column 2, lines 36-49).
- The method of another aspect of the invention relates to suspension polymerization . . . (Column 4, lines 57-60).
- The method of suspension polymerization of the present invention . . . (Column 5, lines 43-45).
- Examples 1 and 2 illustrating suspension polymerization.
- A method of suspension polymerization (Claim 1).

Kamiyama states that emulsion polymerization as a method has defects (column 1, lines 31-42). Kamiyama distinguishes emulsion polymerization from suspension polymerization and states that the claimed suspension polymerization method solves the problems encountered with emulsion polymerization (column 2, lines 33-36).

Kamiyama discloses that the polymer particles therein can be within the range of 5-50 micrometers (column 1, line 15) or 2-30 micrometers (column 6, lines 11-16).

The only use of the word "filler" in Kamiyama (column 1, line 12 and line 24) is to describe the formed polymer product as "functional fillers". Kamiyama does not use the word "filler" to refer to a filler particle in the product. Kamiyama discloses the use of suspension stabilizers at column 6, lines 27-50. This teaching is generally directed to organic suspension stabilizers. Kamiyama briefly discloses inorganic powder suspension stabilizers at column 6, lines 43-45 stating: "Inorganic powders such as calcium phosphate powder and fine silica powder are also often used as suspension stabilizers." The suspension stabilizers do not appear to be dispersed as calcium phosphate is dissolved (see Example 2) and silica "covers the surface of the polymer droplet (column 6, lines 45-46). There is no disclosure of particular inorganic particle sizes. There is no disclosure of ratio of inorganic particle size to polymer particle size. There is no disclosure of any reason to use a particular ratio of inorganic particle size to polymer particle size.

2. The rejection of claims 18 and 20-24, 34 and 36-39 under 35 U.S.C. §102(e).

Claims 18 and 20-24, 34 and 36-39 are rejected under 35 U.S.C. §102(e) as having each and every feature and interrelationship anticipated by U.S. Patent No. 6,140,394 to Kamiyama et al. as affirmed in product literature of Hielscher-Ultrasound Technology, (http://www.hielscher.com/ultrasonics/size_reduction_silica_01.htm).

"It is elementary that an anticipation rejection requires a showing that each limitation of a claim must be found in a single reference, practice, or device." In re Donohue, 226 USPQ 619, 621 point 2 (Fed. Cir. 1985).

a. Kamiyama does not explicitly anticipate Appellant's claims 18 and 20-24, 34 and 36-39.

Pending claim 18 recites in one pertinent part: "A filler containing polymer dispersion . . . wherein the dispersion has a ratio of filler particle size to synthetic organic polymer particle size of 1.1:1 to 20:1." Claims 20-24, 34 and 36-39 depend directly or indirectly from claim 18.

Kamiyama fails to disclose "filler".[2] The only reference to "filler" in Kamiyama (column 1, line 12 and line 24) is to uses for the formed polymer particles. The disclosure in Kamiyama cited in the rejection is limited to suspension stabilizers. The inorganic calcium phosphate suspension stabilizer appears to be dissolved and not particulate. The silica "covers the surfaces of droplets" and is not dispersed.

Arguendo, if the inorganic suspension stabilizer of Kamiyama can be considered filler, then Kamiyama fails to explicitly disclose suspension stabilizer particle size and any ratio of inorganic particle size to polymer particle size. A ratio of inorganic particle size to polymer particle size may exist in the Kamiyama reference. However, it is simply not possible to discern that ratio from the Kamiyama reference because *it never provides any size for the inorganic particles!* The fact that the inorganic particle size *can* be measured does not change the fact that *it never was measured.*

Thus, the Kamiyama reference can not explicitly anticipate claims 18-24, 34 and 36-39.

b. Kamiyama does not inherently anticipate Appellant's claims 18 to 24, 34 and 36-39.

The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. §102. See MPEP §2112. However, "[t]he doctrine of inherency is available only when the prior inherent event can be established as a certainty. That an event may result from a given set of circumstances is not sufficient to establish anticipation. Probabilities are not sufficient . . . A prior inherent event cannot be established based upon speculation . . ." Ethyl Molded Products Co. v. Betts Package Inc., 9 USPQ2d 1001, 1032-1033 (E.D. Ky. 1988). The Court of Appeals for the Federal Circuit has reinforced this position stating: "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." In re Rijckaert, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). To rely on the theory of inherency in rejecting a claim under 35 U.S.C. §§102 or 103, ". . . the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

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[2] This argument was raised in Appellant's October 5, 2006 Response at page 9.

Further, the chemical arts are known to be unpredictable so that a person of ordinary skill is cautious about extrapolating from teachings within those arts. See, for example, In re Marzocchi, 169 USPQ 367, 368-370 (CCPA 1971). This caution in extrapolating from chemical teachings is especially true in the present case as the Kamiyama reference uses a different polymerization process; does not disclose filler; does not disclose any particular inorganic particle size; does not disclose any necessary or useful ratio of inorganic particle size to polymer particle size and does not disclose any reason to use a particular ratio of inorganic particle size to polymer particle size.

i. The cited art provides a huge range of theoretically possible ratios for filler particle size to polymer particle size.

The Examiner asserts:[3]

> Appellants must recognize that the silica powder (col. 6, line 43-45) and polymer particle (col. 1, line 15-16; col. 6, line 11-12, 15) as taught in Kamiyama et al. clearly have sizes that are measurable in micron size ranges, it would not be difficult to one of ordinary skill in art that [sic] there is a ratio exist between the two filler materials or other ingredients. As affirmed in the product literature of Hielscher - Ultrasound Technology, standard silica can have particle sizes range from 2 microns to 600 microns, . . .

Kamiyama discloses polymer particle sizes within the range of 5 to 50 micrometers (column 1, line 15) or 2 to 30 micrometers (column 6, lines 11-15). The product literature of Hielscher-Ultrasound Technology illustrates that silica powder can have a particle size of 0.2 micrometers to 600 micrometers.[4] Using these particle sizes it is theoretically possible to have a ratio of inorganic particle size to polymer particle size ranging from:

inorganic particle size	**polymer particle size**	**ratio inorganic particle size : polymer particle size**
0.2 micrometers	2 micrometers	0.2:2 or 0.1:1
600 micrometers	2 micrometers	600:2 or 300:1
0.2 micrometers	50 micrometers	0.2:50 or 0.004:1
600 micrometers	50 micrometers	600:50 or 12:1

Thus, the cited art provides a theoretically possible range of ratios for inorganic particle size to polymer particle size from 0.004:1 to 300:1; spanning almost five (5) orders of magnitude!

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[3] November 16, 2007 Office Action, page 4.
[4] November 16, 2007 Office Action, page 5, graph showing particle size distribution from less than 0.2 micrometers to more than 600 micrometers.

ii. Kamiyama does not disclose any reason to narrow the huge range of ratios for filler particle size to polymer particle size.

- Kamiyama does NOT describe any particular size for inorganic particles.
- Kamiyama does NOT disclose any particular ratio of inorganic particle size to polymer particle size.
- Kamiyama does NOT disclose any reason to use a particular range of ratios of inorganic particle size to polymer particle size.

iii. Appellant claims only a very narrow range of ratios for filler particle size to polymer particle size.

Pending claim 18 recites in one pertinent part: ". . . wherein the dispersion has a ratio of filler particle size to synthetic organic polymer particle size of 1.1:1 to 20:1."

iv. It is more probable that the Kamiyama ratio for inorganic particle size to polymer particle size falls outside of Appellant's claimed range than within Appellant's claimed range.

Given the huge, theoretically possible range of ratios for inorganic particle size to polymer particle size (0.004:1 to 300:1) why **MUST** the Kamiyama material have a ratio of inorganic particle size to polymer particle size of 1.1:1 to 20:1 as claimed by Appellant? In fact, given the huge, theoretically possible range of ratios for inorganic particle size to polymer particle size (0.004:1 to 300:1) it appears statistically more probable that the Kamiyama ratio falls outside of Appellant's very narrow ratio range than within Appellant's very narrow ratio range.

c. The huge, theoretically possible genus of inorganic particle size to polymer particle size ratios in Kamiyama does not anticipate Appellant's narrowly claimed range of claims 18 and 20-24, 34 and 36-39.

It is well established that the disclosure of a genus in the prior art is not necessarily a disclosure of every species that is a member of that genus. In re Baird, 16 F.3d 380, 382 (Fed. Cir. 1994). There may be many species encompassed within a genus that are not disclosed by a mere disclosure of the genus. Atofina v. Great Lakes Chem. Corp., 441 F.3d 991, 999 (Fed. Cir. 2006).

Kamiyama lacks any teaching or suggestion leading to any ratio of inorganic particle size to polymer particle size. Arguendo, the huge genus of theoretically possible ratios for inorganic particle size to polymer particle size (0.004:1 to 300:1) in Kamiyama does not anticipate Appellant's narrow species of ratio of filler particle size to polymer particle size of 1.1:1 to 20:1.

d. The Board should withdraw the 35 U.S.C. §102(e) rejection of claims 18 and 20-24, 34 and 36-39 as anticipated by Kamiyama.

Kamiyama does not explicitly anticipate Appellant's claims. The teachings of Kamiyama cannot certainly or necessarily or inevitably lead to Appellant's claims. In fact, it appears more probable that any ratio of suspension stabilizer or inorganic particle size:polymer particle size in Kamiyama will be different that Appellant's claimed narrow ratio. Even if there is some teaching concerning inorganic particle size:polymer particle size to be gleaned from Kamiyama (a position that Appellant disputes) the huge genus of Kamiyama does not anticipate Appellant's narrow claimed species.

The Board has reversed rejections finding that all claim limitations were not present in the cited documents. Ex parte McCrossin, Appeal No. 2007-1796, 2007 WL 5084761, at *8 (B.P.A.I. Dec. 27, 2007) (obviousness rejection reversed since Examiner failed to provide "objective evidence" for "significant" claim limitation); Ex parte Parsel, Appeal No. 2007-2619, 2007 WL 4470094, at *4 (B.P.A.I. Dec. 19, 2007) ("Appellant's argument that [cited prior art] does not disclose or suggest the [claimed] range limitation has persuaded us that the Examiner erred.").

Appellant submits that based on the above, the Examiner's rejection of claims 18 and 20-24, 34 and 36-39 under 35 U.S.C. §102(e) cannot stand and the Board should reverse the rejection and pass these claims to issue.

3. The rejection of claims 25-33 and 35 under 35 U.S.C. §102(e).

Claims 25-33 and 35 are rejected under 35 U.S.C. §102(e) as having each and every feature and interrelationship anticipated by U.S. Patent No. 6,140,394 to Kamiyama et al. as affirmed in product literature of Hielscher-Ultrasound Technology.

a. Kamiyama does not explicitly anticipate Appellant's claims 25-33 and 35.

Pending claim 25 recites in one pertinent part: "The process for the production of a filler containing polymer dispersion, which comprises: emulsion polymerizing . . . the aqueous phase containing filler particles . . . with a particle size (d50) of 0.01 to 0.5 µm . . . whereby a dispersion comprising filler particles and polymer particles is formed" Claims 26-33 and 35 depend directly or indirectly from claim 25.

Kamiyama fails to disclose "filler". The only reference to "filler" in Kamiyama (column 1, line 12 and line 24) is to uses for the formed polymer particles. The disclosure in Kamiyama cited in the rejection is limited to suspension stabilizers. The inorganic calcium phosphate suspension stabilizer appears to be dissolved and not particulate. The silica "covers the surfaces of droplets" and is not dispersed. As discussed below, the Examiner's reasoning for ignoring the difference between "filler" and "suspension stabilizer" is contrary to the explicit language in Appellant's claims 25-33 and 35.

Arguendo, if the inorganic suspension stabilizer of Kamiyama can be considered filler, then Kamiyama fails to explicitly disclose particular suspension stabilizer particle size and any ratio of inorganic particle size to polymer particle size. An inorganic particle size may exist in Kamiyama. However, it is simply not possible to discern any such size from Kamiyama because *it never provides any size for the inorganic particles!* The fact that the inorganic particle size *can* be measured does not change the fact that *it never was measured.* Kamiyama can not explicitly anticipate claims 25-33 and 35.

b. Kamiyama does not inherently anticipate Appellant's claims 25-33 and 35.

i. The record establishes a huge range of possible inorganic particle sizes.

As discussed above the record establishes that silica powder can have a huge range of particle sizes from 0.2 micrometers to 600 micrometers.

ii. Kamiyama does NOT disclose any reason to narrow the huge range of inorganic particle sizes.

- Kamiyama does NOT describe any particular size for inorganic particles.
- Kamiyama does NOT disclose any particular ratio of inorganic particle size to polymer particle size.
- Kamiyama does NOT disclose any reason to use a particular range for ratio of inorganic particle size to polymer particle size.

iii. Appellant claims only a very narrow range of filler particle sizes.

Pending claim 25 recites in one pertinent part: ". . . containing filler particles . . . with a particle size (d50) of 0.01 to 0.5 µm . . ."

iv. It is more probable that the Kamiyama inorganic particle size falls outside of Appellant's claimed range than within Appellant's claimed range.

Given the huge, range of inorganic particle sizes (0.2µm to 600 µm) why

MUST the Kamiyama material have an inorganic particle size (d50) of 0.01 µm to 0.5 µm? In fact, given the huge, range of inorganic particle sizes it appears more probable that the Kamiyama inorganic particle size falls outside of Appellant's narrow filler particle size range than within Appellant's narrow filler particle size range.

c. The huge genus of theoretically possible inorganic particle sizes in Kamiyama does not anticipate Appellant's narrowly claimed range of claims 25-33 and 35.

Kamiyama lacks any teaching of a particular filler particle size. Arguendo, the huge genus of theoretically possible filler particle sizes (0.2µm to 600 µm) does not anticipate Appellant's narrow species of filler particle size (0.01 µm to 0.5 µm).

d. The asserted reasoning for this rejection is not correct.

Kamiyama fails to disclose "filler". The disclosure in Kamiyama cited in the rejection is limited to suspension stabilizers. The only reference to "filler" in Kamiyama (column 1, line 12 and line 24) is to uses for the formed polymer particles.

The Examiner's asserts that, with underlining added: ". . . the recitation 'filler' or the 'suspension stabilizer' teachings in Kamiyama et al. are merely functional language . . . Since Appellant's claims are related to a polymer dispersion composition (not a process), the examiner has a reasonable basis that the claimed 'filler' has very little weight in patentability . . ."[5].

This asserted reasoning is clearly wrong as claims 25-33 and 35 are directed to a process.

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[5] November 9, 2006 Office Action, page 5.

e. Kamiyama is not enabled to be anticipatory prior art to Appellant's claims 25-33 and 35.[6]

To anticipate a reference must sufficiently describe the claimed invention to place the public in possession of it. Paperless Accounting, Inc. v. Bay Area Rapid Transit System, 804 F.2d 659, 231 USPQ 649, 653 (Fed. Cir. 1986). To be prior art under 35 U.S.C. §102 a reference must contain an enabling disclosure of the invention. Chester v. Miller, 15 USPQ2d 1333, 1336 note 2 (Fed. Cir. 1990).

v. Appellant's claims 25-33 and 35 are directed to emulsion polymerization.

Pending claim 25 recites in one pertinent part: "The process for the production of a filler-containing polymer dispersion, which comprises: emulsion polymerizing at least one radical-polymerizable monomer . . ."

vi. Kamiyama is limited to suspension polymerization.

As discussed above Kamiyama discloses only suspension polymerization methods. In fact, Kamiyama distinguishes emulsion polymerization, teaching that the allegedly inventive suspension polymerization method solves alleged problems resulting from use of emulsion polymerization. The April 5, 2006 Office Action acknowledges that Kamiyama discloses suspension polymerization. There is no support or enabling disclosure for emulsion polymerization in Kamiyama. Kamiyama is not properly prior art to Appellant's claims 25-33 and 35.

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[6] This issue of emulsion polymerization vs. suspension polymerization was raised in a telephone interview on March 20, 2008 and in the Second Response Under Rule 116 filed on March 25, 2008. These arguments, among others, were considered by Examiner Cheung with respect to claim 19 and resulted in withdrawal of the rejection of claim 19 as being anticipated by Kamiyama. See April 10, 2008 Advisory Action.

f. The Board should withdraw the rejection of claims 25-33 and 35 are rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,140,394 to Kamiyama et al.

Kamiyama is not enabled for emulsion polymerization and not properly prior art with respect to emulsion polymerization methods. Kamiyama does not disclose "filler". Kamiyama does not explicitly anticipate Appellant's claimed filler particle size. The teachings of Kamiyama cannot certainly or necessarily or inevitably lead to Appellant's claimed filler particle size. In fact, it appears more probable that if there is a Kamiyama inorganic particle size it will be different then Appellant's claimed narrow size range. Even if there is some teaching concerning inorganic particle size to be gleaned from Kamiyama (a position that Appellant disputes) the huge genus of Kamiyama does not anticipate Appellant's narrow claimed range. The reasoning asserted for alleging Kamiyama is anticipatory art to Appellant's claims 25-33 and 35 is wrong. Appellant submits that based on the above, the Examiner's rejection of claims 25-33 and 35 under 35 U.S.C. §102(e) cannot stand and the Board should reverse the rejection and pass this application to issue.

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X. Claims Appendix

1. to 17 (cancelled)

18. (previously presented) A filler-containing polymer dispersion, comprising water, particles of at least one filler selected from the group consisting of organic fillers, inorganic fillers and mixtures thereof, at least one water soluble organic polymer with a molecular weight of more than 600 and an HLB value of at least 15, and particles of at least one synthetic organic polymer, polymerized in the presence of at least one type of the filler particles, wherein the dispersion has a ratio of filler particle size to synthetic organic polymer particle size of 1.1:1 to 20:1.

19. (previously presented) The filler-containing polymer dispersion as claimed in claim 18, wherein the synthetic organic polymer particles have a diameter (d50) of 0.03 to 0.5 µm.

20. (previously presented) The filler-containing polymer dispersion as claimed in claim 18, wherein the inorganic filler comprises a member selected from the group consisting of chalk ($CaCO_3$), gypsum ($CaSO_4$) as anhydrite, hemihydrate or dihydrate, silica flour, silica gel, titanium dioxide, talcum, a layer silicate, barium sulfate, barite and mixtures thereof and wherein the organic filler comprises a member selected from the group consisting of polyvinyl acetate, vinyl acetate copolymers, polystyrene, polyethylene, polypropylene, waxes, polybutylene, polybutadiene, copolymers of butadiene and styrene, polyacrylonitrile, resins, polyacrylate esters, polymethacrylate esters polymers containing silyl groups and mixtures thereof.

21. (previously presented) The filler-containing polymer dispersion as claimed in claim 18, wherein the at least one water-soluble polymer comprises a member selected from the group consisting of polyvinyl alcohol, cellulose ethers, carboxymethyl celluloses, hydroxyethyl celluloses, casein, potassium alginate, sodium alginate, polyurethanes and mixtures thereof.

22. (previously presented) The filler-containing polymer dispersion as claimed in claim 18, wherein the dispersion comprises at least one ionic surfactant with an HLB value of 1 to 10.

23. (previously presented) The filler-containing polymer dispersion as claimed in claim 18, wherein the dispersion comprises at least one nonionic surfactant with an HLB value of 13 to 20.

24. (previously presented) The filler-containing polymer dispersion as claimed in claim 18 comprising:

a) 10 to 70% by weight of a water-insoluble organic polymer;
b) 5 to 55% by weight of filler particles;
c) 0.02 to 1.0% by weight of a nonionic surfactant with an HLB value of 13 to 20;
d) 0.01 to 0.1% by weight of an ionic surfactant with an HLB value of 1 to 10;
e) 0.05 to 10% by weight of a water-soluble organic polymer with a molecular weight of more than 600 and an HLB value of more than 15;
f) 24.92% to 84.89% by weight of water and
g) 0 to 30% by weight of additives.

25. (previously presented) The process for the production of a filler-containing polymer dispersion, which comprises: emulsion polymerizing at least one radical-polymerizable monomer in an aqueous phase using a polymerization initiator, the aqueous phase containing filler particles of at least one dispersed filler with a particle size (d50) of 0.01 to 0.5 μm and at least one water-soluble organic polymer with a molecular weight of more than 600 and an HLB value of more than 15 whereby a dispersion comprising filler particles and polymer particles is formed.

26. (previously presented) The process as claimed in claim 25, wherein the aqueous phase contains an ionic surfactant.

27. (previously presented) The process as claimed in claim 25, wherein the aqueous phase contains a nonionic surfactant.

28. (previously presented) The process as claimed in claim 25, wherein the polymerization initiator is water-soluble.

29. (previously presented) The process as claimed in claim 25, wherein the process is carried out in at least two successive stages comprising:

a) a first stage comprising preparing a dispersion containing:

1) at least one ionic surfactant with an HLB value of 1 to 10 or a nonionic surfactant with an HLB value of 13 to 20 or a mixture of two or more thereof,

2) at least one inorganic filler with a particle size (d50) of 0.01 to 0.5 μm.

3) at least one polymerization initiator and

4) at least one water-soluble organic polymer with a molecular weight of more than 600 and an HLB value of more than 15 and then heating the dispersion to a temperature of 70 to 90°C; and

b) a second stage comprising adding and polymerizing at least one radical-polymerizable monomer in the dispersion prepared in the first stage.

30. (previously presented) The process as claimed in claim 29, wherein the inorganic filler particles are added before the polymerization initiator.

31. (previously presented) The process as claimed in claim 25, wherein the filler particles dispersed in the aqueous phase are pre-emulsified with one or more monomers.

32. (previously presented) The process as claimed in claim 31, wherein the polymerization initiators are added in portions to the dispersion.

33. (previously presented) The filler-containing polymer dispersion, produced by the process claimed in claim 25.

34. (previously presented) An adhesive or surface coating composition, comprising at least one filler-containing polymer dispersion according to claim 18.

35. (previously presented) The adhesive or surface coating composition produced by the process of claim 25.

36. (previously presented) The filler containing polymer of claim 19, wherein the inorganic filler comprises a member selected from the group consisting of chalk ($CaCO_3$), gypsum ($CaSO_4$) as anhydrite, hemihydrate or dihydrate, silica flour, silica gel, titanium dioxide, talcum, a layer silicate, barium sulfate, barite and mixtures thereof and wherein the organic filler comprises a member selected from the group consisting of polyvinyl acetate vinyl acetate copolymers, polystyrene, polyethylene, polypropylene, waxes, polybutylene, polybutadiene, copolymers of butadiene and styrene, polyacrylonitrile, resins, polyacrylate esters, polymethacrylate esters polymers containing silyl groups and mixtures thereof.

37. (previously presented) The filler-containing polymer dispersion as claimed in claim 19, wherein the dispersion comprises at least one ionic surfactant with an HLB value of 1 to 10.

38. (previously presented) The filler-containing polymer dispersion as claimed in claim 18 comprising:

a) 10% to 70% by weight of a water-insoluble organic polymer;
b) 5% to 55% by weight of filler particles;
c) 0.05% to 0.5% by weight of a nonionic surfactant with an HLB value of 13 to 20;
d) 0.02% to 0.5% by weight of an ionic surfactant with an HLB value of 1 to 10;
e) 0.05% to 10% by weight of a water-soluble organic polymer with a molecular weight of more than 600 and an HBL value of ore than 15;
f) 24.88% to 84.8% by weight of water; and

g) 0% to 30% by weight of additives.

39. (previously presented) The filler-containing polymer dispersion as claimed in Claim 18 containing at least one nonionic surfactant with an HLB of 13 to 20 and an ionic surfactant with an HLB of 1 to 10 wherein a ratio by weight of nonionic surfactant to ionic surfactant is from about 5:1 to about 1:5.

XI. Evidence Appendix

Copy of U.S. Patent Publication No. 2004/0077761.

XII. Related Proceedings Appendix

None.